

HDR 205HD

**Ruggedized High Definition
Video Cassette Recorder**

User Manual

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INTRODUCTION

GENERAL

The HDR 205HD is a ruggedized version of the model SR-W7U W-VHS tape recorder from JVC Professional Products. The HDR 205HD works in conjunction with the Videolink HD, a bi-directional RGB to HDTV scan converter.

The ruggedized model offers the following features and upgrades:

- All metal chassis
- BNC locking connectors on all inputs and outputs
- RS-422 port (standard)
- RS-232 port (optional)
- Shock mounting
- 220 volt AC option
- Internal stiffening
- Rackmounts

For a complete understanding of this recording system, this manual should be considered in conjunction with the User Manual for the Videolink HD.

SHOCK MOUNTS

Two types of shock mounting are offered:

- for shipboard and airborne applications
- for land-based applications

The difference between these two shock mounting options is that for land-based applications they are stiffer. There is no visual difference between the two.

RACK MOUNTS

The standard rack mount components supplied with the HDR 205HD includes slides suitable for a 22" deep rack. The front screw holes of the slide and front panel of the HDR 205HD are designed to work with a compound style mount.

That is, a rack equipped with double vertical mount bars, providing two sets of front screw holes.

Extenders and mounting adapters can be ordered to custom fit the rackmount to a particular rack size and style.

RECORDING MEDIA

The recorder can use either W-VHS or Digital S-video cassette tapes. Both types are offered in recording lengths varying from 1 - 3.5 hours.

MECHANICALS

The back panel of the HDR 205HD is shown below. For specific connection instructions, please refer to the User Manual for the Videolink HD.

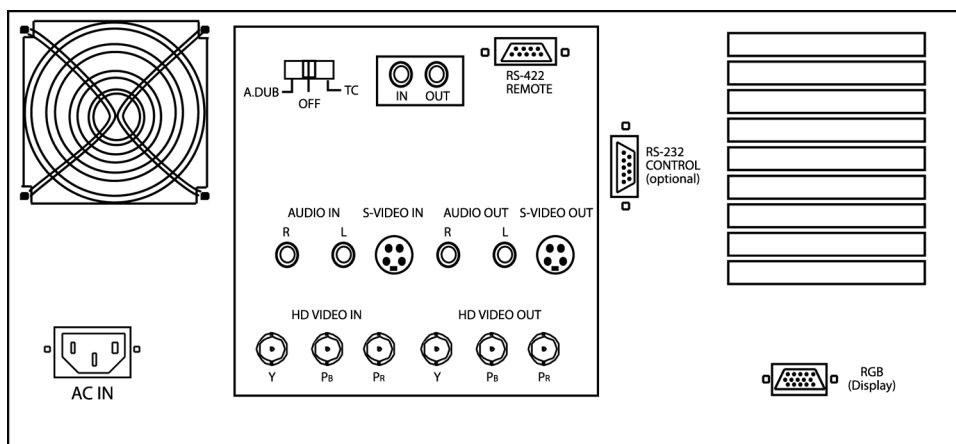


FIGURE 1. Back Panel of HDR 205HD

For a diagram of the front panel, please refer to the JVC Manual included in Chapter 5 of this manual.

SUPPLIED COMPONENTS

SUPPLIED COMPONENTS

The HDR 205HD is shipped with the following components in the carton:

- HDR 205HD
- Power cord
- User manual

OPTIONAL COMPONENTS

- BNC to BNC cable bundles
- W-VHS and Digital S video cassette tapes

TECHNICAL SPECIFICATIONS

Connectors

HD Video In	3 BNCs (female)
HD Video Out	3 BNCs (female)
S-Video In	4-pin mini-DIN (female)
S-Video Out	4-pin mini-DIN (female)
Audio In	L/R RCAs (female)
Audio Out	L/R RCAs (female)
Time Code In	RCA (female)
Time Code Out	RCA (female)
RS-422	9-pin D-Sub (female) - standard
RS-232	9-pin D-Sub (female) - optional
RGB (Display)	15-pin HD D-Sub (female)

Power Requirements

Voltage	120 V, 60 Hz or 220 V, 50 Hz (must be specified when ordered)
Power	40 Watts
MTBF	27,000 hours

Physical

Dimensions	19.0" (W) x 18.7" (H) x 18" (D); 5U rackmount
Weight	35 lbs

Environmental

Temperature	Operating 5 to 40 C Non-operating -20 to 60 C
Humidity	35% to 80% non-condensing



Note: See the included JVC Manual in Chapter 5 for additional technical specifications.

REMOTE CONTROL

The HDR 205HD is the ruggedized version of the SR-W7U W-VHS recorder from JVC Professional Products. The HDR 205HD comes standard with an RS-422 port, suitable for machine control. You can read more about this remote control method in the JVC Instructions booklet included as part of this manual. (See Chapter 5.)

RS-232 CONTROL

The HDR 205HD offers an optional RS-232 serial communications port for remote control of its functions. This enables the device to receive data and instructions from host applications, and to be explicitly controlled with commands sent via the serial port from a computer (or ASCII terminal). This port is configured according to the Electronic Industries Association Standard RS-232-C published in August 1969.

CONNECTING THE OPTIONAL RS-232 PORT

The ruggedized HDR 205HD can be explicitly controlled with ASCII Command Set instructions sent via the RS-232 serial port from either a computer or an ASCII terminal. See "*Serial Command Set*" below for details on the Command Set. The serial port is a female DB9 connector.

Serial port connection to the host requires a serial cable to connect to the host. This cable is typically a standard "straight-through" cable, though if the HDR 205HD is connected to a computer configured as a Data Communications Equipment (D.C.E.), you'll need to use a null modem cable (described later in this document). Make the cable connection during the hardware installation sequence.

The serial port's DB9 connector is configured as D.C.E. and is described below.

TABLE 1. RS-232 Serial Port Pinout

9-pin D-Sub	Description
1	(not connected)
2	Received Data
3	Transmitted Data
4	Data Terminal Ready
5	Ground
6	Data Set Ready
7	Request to Send
8	Clear to Send
9	(not connected)

**RS-232
PARAMETERS**

Ensure that your device is set up with these default serial port parameters.

TABLE 2. RS-232 Serial Port Parameters

Duplex	Full
Baud rate	9600 (or as required)
Data bits	8
Start bit	1
Stop bit	1
Parity	no parity
Physical	9-pin D-Sub connector (female)
Configuration	D.C.E.
Handshake	X-On / X-Off

NULL MODEM

You may need to connect the HDR 205HD's serial port adapter to a host computer configured as Data Communications Equipment. This is done using a null modem. The net effect of a null modem is to reverse the Transmitted Data and Received Data connections. Also, the Request to Send and Clear to Send connections are reversed. This is done by using a special "null modem" cable, or by inserting a small "null modem" box or cable in series with a regular "straight through" cable.

SERIAL COMMAND SET

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The HDR 205HD has a limited command set. The commands are simple, four-character "words." There are no arguments.

BUFFERED COMMANDS

Serial commands must be buffered and issued to the recording device all at once. That is, you cannot send the commands character by character and execute with a carriage return. If the complete command is not issued with less than a 300 millisecond delay between characters, the instruction is ignored.

Buffered commands can be sent by pre-programming the four-character command string in a communications program which offers this feature. Many communications programs provide for programming buffered text strings. Dedicated serial controllers and terminal devices can also be pre-programmed with the commands and used for RS-232 control of the HDR 205HD.

SERIAL COMMAND SET

The table below details the command set for the HDR 205HD. Commands are case sensitive and must be entered in uppercase as shown.

TABLE 3. RS-232 Serial Command Set

Command	Description	Comments
W20F	Operate (ON/OFF)	
W209	Record	
W211	Stop	
W219	Play	
W229	Pause	
W239	Fast Forward	
W201	Rewind	
W01B	Write VISS mark	Unit must be in "Play" or "Record" to write a VISS mark
W003	Erase next VISS mark	
W02B	Seek to next VISS mark	See " <i>Seeking to Multiple VISS Marks</i> "
W00B	Seek to previous VISS mark	See " <i>Seeking to Multiple VISS Marks</i> "

SEEKING TO MULTIPLE VISS MARKS

It is possible to instruct the VCR to seek forward and backward multiple VISS marks. Repeated seek commands, either W02B (next) or W00B (previous), increase the VISS mark search counter as seen on the front panel LCD display. The counter appears as a red numeral with a "-" for seeking to previous marks.

JVC SR-W7U MANUAL

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NOTE: This section contains the user manual for the JVC SR-W7U recorder as published by JVC Professional Products. This insert is only included in the printed (hard copy) version of the manual and is not available in this PDF file. The printed version is available from RGB Spectrum.

